

Occurrence of *Talavera aperta* (Miller, 1971) (Araneae: Salticidae) in Poland

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Abstract: *Talavera aperta* is a rare member of the Salticidae (jumping spiders). Its presence in Poland has been questioned. This paper presents data on 20 new localities of this poorly known species and a map of its distribution in western and central Poland. Detailed drawings of the male body, male palps and the female epigynum are also provided. *T. aperta* was usually collected from dry, sunny habitats, mostly in June, although some specimens were recorded in other months. In winter, spiders of this species were found in shells of small snails (*Cepaea* spp., *Helicella obvia*).

Keywords: *Talavera aperta*, Salticidae, spiders, distribution, Poland, habitats, overwintering

INTRODUCTION

Talavera aperta (Miller, 1971) is a rare spider species with a Western Eurasian range (LOGUNOV & KRONESTEDT 2003; WORLD SPIDER CATALOG 2016). Its description by MILLER (1971), not very precise, resulted in several synonymizations with *Talavera thorelli* (Kulczyński, 1891) or *Talavera monticola* (Kulczyński, 1884) (comp. LOGUNOV & KRONESTEDT 2003; WORLD SPIDER CATALOG 2016).

There is a lot of confusion around the occurrence of *T. aperta* in Poland. STARĘGA (1984), on the basis of a male collected in the vicinity of Warsaw, recorded the species as new to Poland. Another site of occurrence of *T. aperta*, in eastern Poland,

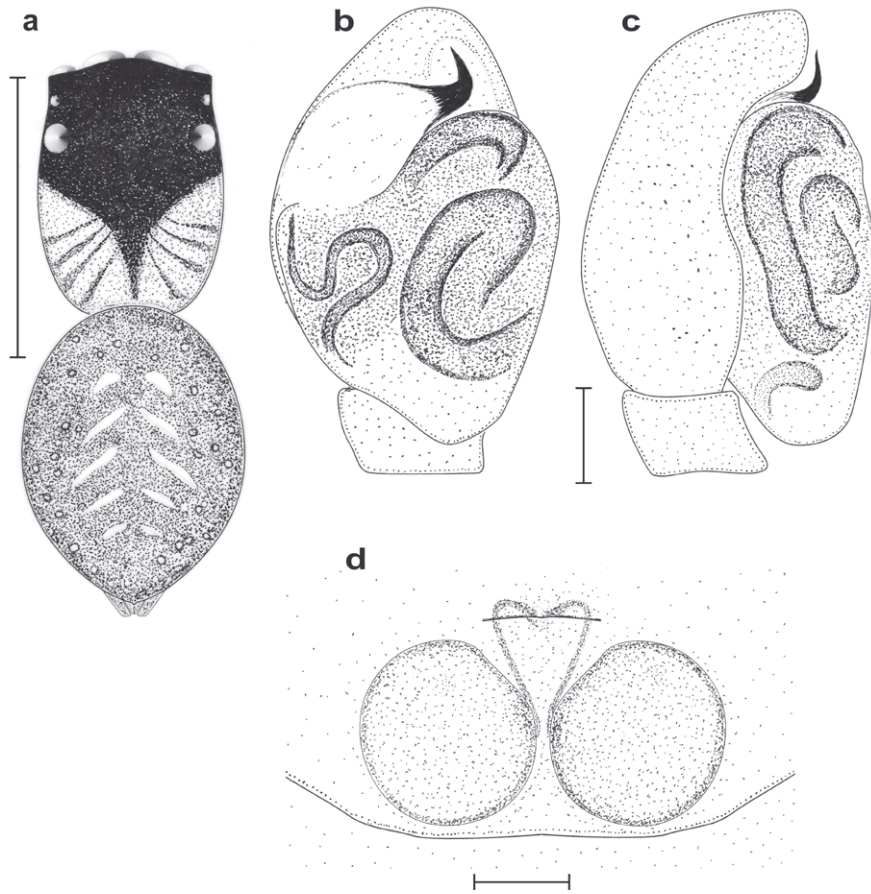


Fig. 1. *Talavera aperta* (MILLER): (a) male, overall view; (b) male palp, ventral view; (c) male palp, lateral view (specimen from Lednica Ethnographic Park); (d) female epigynum (specimen from Santok). Scale bar = 1 mm (a) or 0.1 mm (b–d) (drawings by R. Rozwałka)

was reported by ROZWAŁKA (1995), but that record later proved to be false, due to misidentification of *T. aequipes* (O.P. Cambridge, 1871) (R. Rozwałka ver.). ŻABKA (1997) considered *T. aperta* as a junior synonym of *T. monticola* (Kulczyński), so he did not include it in the key to the Salticidae of Poland (ŻABKA 1997). PRÓSZYŃSKI & STARĘGA (1997) and ŻABKA & PRÓSZYŃSKI (1998) repeated the information about synonymization of *T. aperta* with *T. monticola* and deleted this species from the list of spiders of Poland. Nevertheless, BLICK et al. (2004), in accordance with STARĘGA (1984), referred to *T. aperta* as a species occurring in Poland. The presence of *T. aperta* in Poland is also mentioned by NENTWIG et al. (2016), STAUDT (2016), and VAN HELSDINGEN (2016), mostly based on the checklist of spiders of Central Europe (BLICK

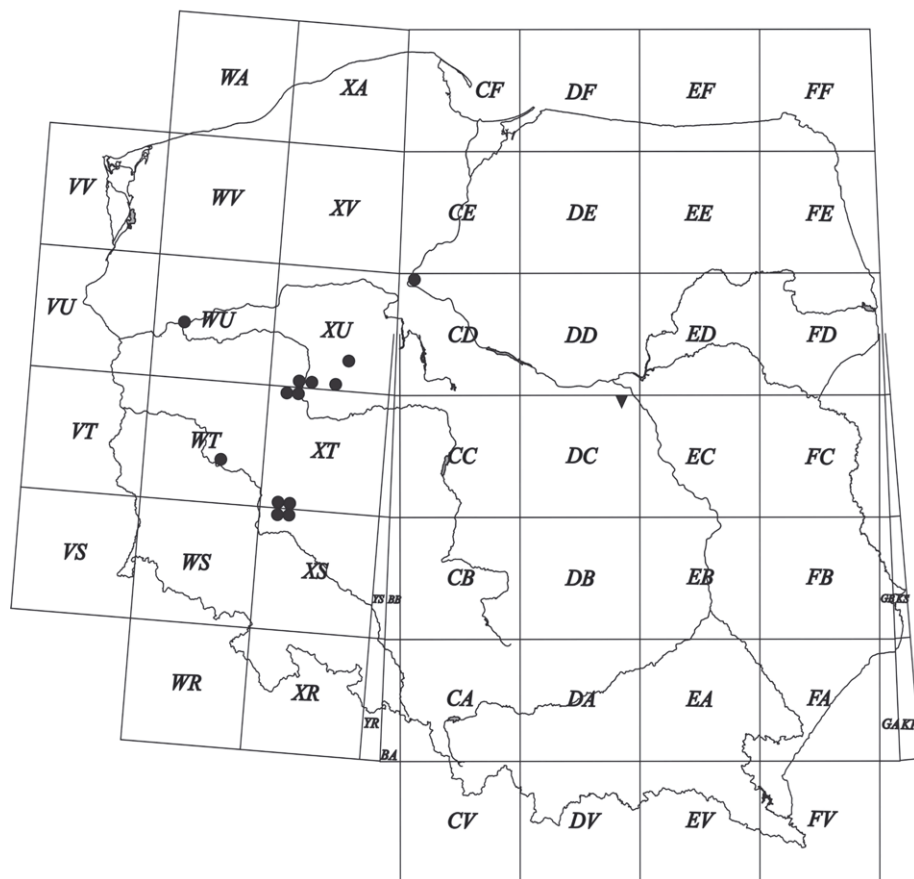


Fig. 2. Distribution of *Talavera aperta* in Poland: triangle = literature data; circles = new data

et al. 2004). In contrast, KUPRYJANOWICZ (2008), followed the earlier publications of PRÓSZYŃSKI & STAREGA (1997), ŻABKA (1997), and ŻABKA & PRÓSZYŃSKI (1998), and did not include this species in the list of spiders of Poland.

In this paper, we present a series of new records of *Talavera aperta* in Poland (Fig. 2). All the records were made during faunistic studies (arachnological and entomological). Many specimens were found in Barber pitfall traps, routinely used to catch spiders, insects, and other terrestrial invertebrates.

MATERIAL EXAMINED

Bydgoszcz-Fordon [CD 19], 53°8'46"N, 18°9'38"E, ruins of old paper mill near railway line, in empty shells of *Cepaea* spp., leg. et det. T. Rutkowski: 24 Dec

2013 – 1♀, 3 juv.; in empty shells of *Helicella obvia* (Menke, 1828), syn. *Xerolenta obvia* (Menke, 1828) – 2 juv.

Lednica Ethnographic Park [XU 62], 52°30'44"N, 17°22'57"E, young orchard, pitfall traps, leg. K. Renn, det. R. Rozwałka: 6–28 June 2012 – 1♂.

Lednica Ethnographic Park [XU 62], 52°31'01"N, 17°22'47"E, xerothermic grassland near Lednica Lake, pitfall traps, leg. K. Renn, det. R. Rozwałka: 4 Aug – 9 Sep 2012 – 1 juv.

Lisówki [XT 19], 52°19'09"N, 16°38'15"E, xerothermic grassland with hawthorn shrubs on south-facing slope, pitfall traps, leg. et det. T. Rutkowski: 4–14 June 2013 – 1♂, 1♀; 24 Apr – 8 May 2014 – 1♂.

Mosina near Poznań [XT 29], 52°15'11"N, 16°50'48"E, xerothermic grassland, postindustrial area, pitfall traps, leg. et det. T. Rutkowski: 24 Apr – 8 May 2015 – 1♂; 22 May – 11 June 2015 – 2♂♂.

Mosina near Poznań [XT 29], 52°15'6"N, 16°50'51"E, xerothermic grassland, abandoned allotment gardens, pitfall traps, leg. et det. T. Rutkowski: 11–28 June 2015 – 1♂.

Nieszkowice [XS 19], 51°25'25"N, 16°43'01"E, complex of old gravel pits, sandy grassland, pitfall traps, leg. et det. T. Rutkowski: 31 May – 15 June 2013 – 1♂.

Pękoszów [WT 63], 51°43'03"N, 15°55'21"E, dry slope of flood embankment, pitfall traps, leg. P. Sienkiewicz, det. R. Rozwałka: 19 July – 8 Aug 2014 – 1♂.

Pianówka [XU 05], 52°52'4"N, 16°29'33"E, old railway line, under stones, leg. et det. T. Rutkowski: 7 May 2013 – 1♂.

Pianówka [XU 05], 52°52'42"N, 16°29'43"E, thermophilous oak forest, pitfall traps, leg. G. Wojtaszyn, det. T. Rutkowski: 10–16 June 2013 – 2♀♀.

Pierusza [XS 29], 51°24'43"N, 16°44'40"E, xerothermic grassland located on south-facing slope, pitfall traps, leg. et det. T. Rutkowski: 1–15 June 2013 – 1♂; 15 June – 1 July 2013 – 3♂♂, 2♀♀; 1–10 July 2013 – 1♂.

Pierusza [XS 29], 51°25'11"N, 16°45'18"E, mosaic of small gravel pits and sandy grassland, pitfall traps, leg. et det. T. Rutkowski: 31 May – 15 June 2013 – 3♂♂; 15 June – 1 July 2013 – 1♂, 3♀♀; 1–10 July 2013 – 1♂, 1♀; 10–24 July 2013 – 2♂♂.

Poznań-Junikowo [XU 20], 52°23'56"N, 16°56'26"E, dry anthropogenic grassland, overwintering in empty *Helicella obvia* shells, leg. et det. T. Rutkowski: 2 Jan 2014 – 1 juv.

Poznań-Starołęka [XU 30], 52°22'41"N, 16°49'24"E, dry anthropogenic grassland, overwintering in empty *Helicella obvia* shells, leg. A. Dziabaszewski, T. Rutkowski, det. T. Rutkowski: 29 Dec 2012 – 5 subadult ♂.

Santok [WU 24], 52°44'05"N, 15°23'19"E, xerothermic grassland (*Adonido-Brachypodietum*) with *Arrhenatherum elatius*, pitfall traps, leg. P. Sienkiewicz, det. R. Rozwałka: 16 Apr – 19 May 2013 – 2♂♂, 4 juv.; 31 July – 5 Sep 2013 – 1 juv.; 5–30 Sep 2013 – 1♂, 1 juv.; 5 Oct – 18 Nov 2013 – 2 juv.

Santok [WU 24], 52°44'06"N, 15°23'24"E, xerothermic grassland (*Adonido-Brachypodietum*) with *Peucedanum oreoselinum*, pitfall traps, leg. P. Sienkiewicz, det. R. Rozwałka: 19 May – 27 June 2013 – 1♂, 1♀, 2 juv.

Smogorzów [XS 19], 51°25'34"N, 16°39'32"E, very wet meadow, pitfall traps, leg. et det. T. Rutkowski: 31 May – 15 June 2013 – 1♀, 1 juv.

Smogorzówek [XS 19], 51°25'14"N, 16°40'01"E, complex of old gravel pits, sandy grassland, pitfall traps, leg. et det. T. Rutkowski: 31 May – 15 June 2013 – 3♂♂, 1♀.

Trzcinica Wołowska [XT 20], 51°26'25"N, 16°44'12"E, complex of old gravel pits, sandy grassland, pitfall traps, leg. et det. T. Rutkowski: 18–31 May 2013 – 1♂; 31 May – 15 June 2013 – 1♀.

Wińsko [XT 10], 51°28'12"N, 16°35'30"E, mosaic of old gravel pits and xerothermic grassland, pitfall traps, leg. et det. T. Rutkowski: 31 May – 15 June 2013 – 7♂♂, 1♀; 15 June – 1 July 2013 – 1♂, 1♀; 1–9 July 2013 – 1♂; 31 Aug – 3 Oct 2013 – 1♀.

Precise descriptions of *Talavera aperta* can be found in publications of CHVÁTALOVÁ & BUCAR (2002) and LOGUNOV & KRONESTEDT (2003). Fig. 1 shows the general appearance of the male body (a) and male palps (b–c) as well as the female epigynum (d).

CONCLUSIONS

The presented results of field research confirm that *Talavera aperta* is widespread in western Poland. It is a thermophilous species, preferring various open, sunny habitats, as previously mentioned by BUCAR & RŮŽIČKA (2002), CHVÁTALOVÁ & BUCAR (2002), and LOGUNOV & KRONESTEDT (2003). Occasional findings of *T. aperta* in wet habitats (comp. LOGUNOV & KRONESTEDT 2003) probably concern migrating specimens. Adults of *T. aperta* were caught mainly in June, although some adults were active most of the summer and autumn (Fig. 3). Overwintering of spiders

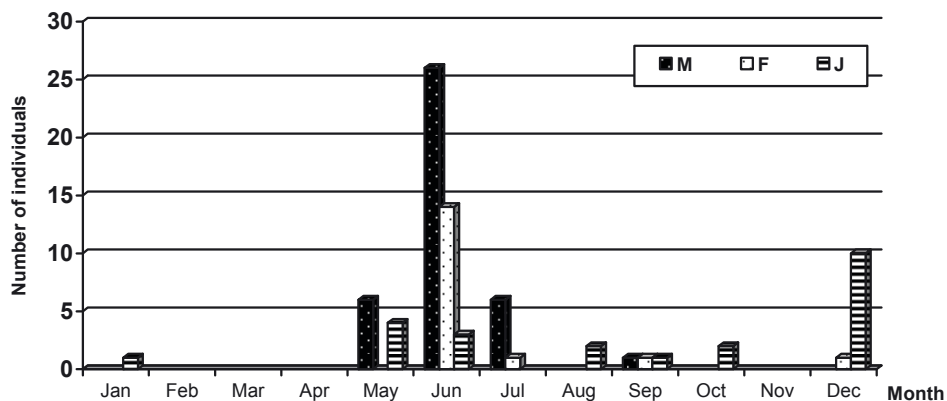


Fig. 3. Seasonal distribution of captured individuals of *Talavera aperta*, disaggregated by sex and age

of the genus *Talavera* in empty shells of land snails is a known phenomenon (HORN 1980; SZINETAR et al. 1998; HULA et al. 2009; NIEDOBOVÁ et al. 2013). The cited findings concern *T. aequipes* and *T. petrensis* (C.L. Koch). The only report on *T. aperta* in snail shells, as a species new to Hungary (SZINETAR et al. 1998), seems to be due to misidentification, as this species is not mentioned in the Hungarian Salticidae checklist (SZÜTS et al. 2003). Therefore it can be assumed that our findings in Poland are the first well-documented cases of affinity of this species to empty land snail shells. Detailed data on overwintering of the spiders in shells in Poland and determination of immature specimens of *T. aperta* will be provided in a separate work.

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